

## **Proposed Item for Biobased Designation**

The following biobased product information has been collected to support item designation by USDA for the Federal Biobased Product Preferred Procurement Program (FB4P). This summary reflects data available as of July 26, 2006.

### **Title: Biobased Carpets**

**Description:** Floorcovering that consists of woven fibers and an adhesive backing.

**Manufacturers Identified:** 7 manufacturers producing Biobased Carpets have been identified through internet searches, manufacturer's directories, trade associations, and company submissions.

**Industry Associations Investigated:** The following industry associations have been investigated for member companies producing Biobased Carpets:

- Carpents & Rugs Manufacturer's Association
- Carpet & FabriCare Institute
- Synthetic Turf Council
- National Recycling Coalition
- Invista Partnership for Carpet Reclamation
- U.S. Green Building Council

**Commercially Available Products Identified:** Of the manufacturers identified, 18 Biobased Carpets are commercially available on the market.

**Product Information Collected:** Specific product information including company contact, intended use, biobased content, and performance characteristics have been collected on 8 Biobased Carpets.

**Industry Performance Standards:** Product information submitted by biobased manufacturers indicate that have typically been tested to the following industry standards:

- Aachen Test, ISO/EN Dimensional Stability: Machine-made textile floor coverings - Determination of dimensional changes due to the effects of varied water and heat conditions
- American Association of Textile Chemists and Colorists #Color Fastness AATCC 165 Crocking: Textile Floor Coverings-AATCC Crockmeter Method
- American Association of Textile Chemists and Colorists #Color Fastness AATCC 164 Oxides of Nitrogen in the Atmosphere under High Humidities
- American Association of Textile Chemists and Colorists #Color Fastness AATCC 129 Ozone in the Atmosphere under High Humidities
- American Association of Textile Chemists and Colorists #Color Fastness AATCC 138 Cleaning: Washing of Textile Floor Coverings
- American Association of Textile Chemists and Colorists #Color Fastness AATCC 107 Water
- American Society for Testing and Materials #D1335 Standard Test Method for Tuft Bind of Pile Yarn Floor Coverings

- American Society for Testing and Materials #D3936 Standard Test Method for Resistance to Delamination of the Secondary Backing of Pile Yarn Floor Covering

**Samples Tested for Biobased Content:** 9 samples of Biobased Carpets have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

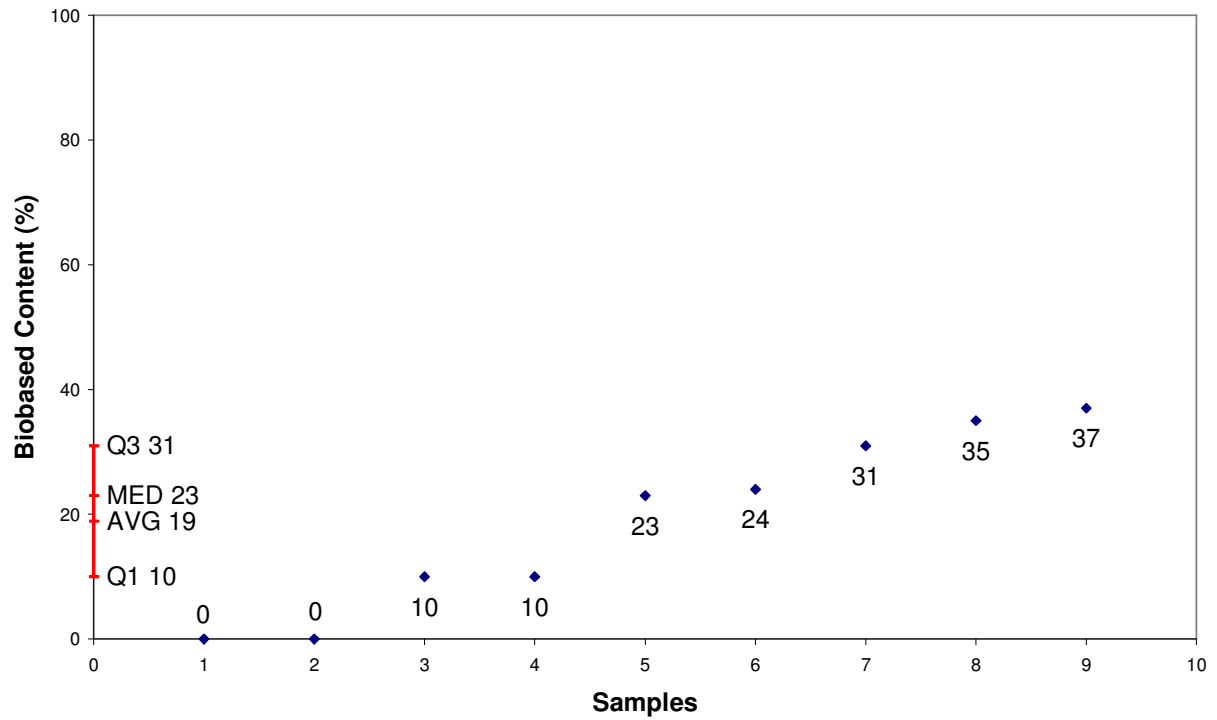
**Biobased Content Data:** Results from biobased content testing of Biobased Carpets indicate a range of content percentages from 0% minimum to 37% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A.

**Products Submitted for BEES Analysis:** Life-cycle cost and environmental effect data for 2 Biobased Carpets have been submitted to NIST for BEES analysis.

**BEES Analysis:** The life-cycle costs of the submitted Biobased Carpets range from \$39.22 minimum to \$39.22 maximum per usage unit. The environmental scores range from 0.2429 minimum to 0.2429 maximum. A detailed summary of the BEES results is included as Appendix B.

## Appendix A - Biobased Content Data

### Carpets

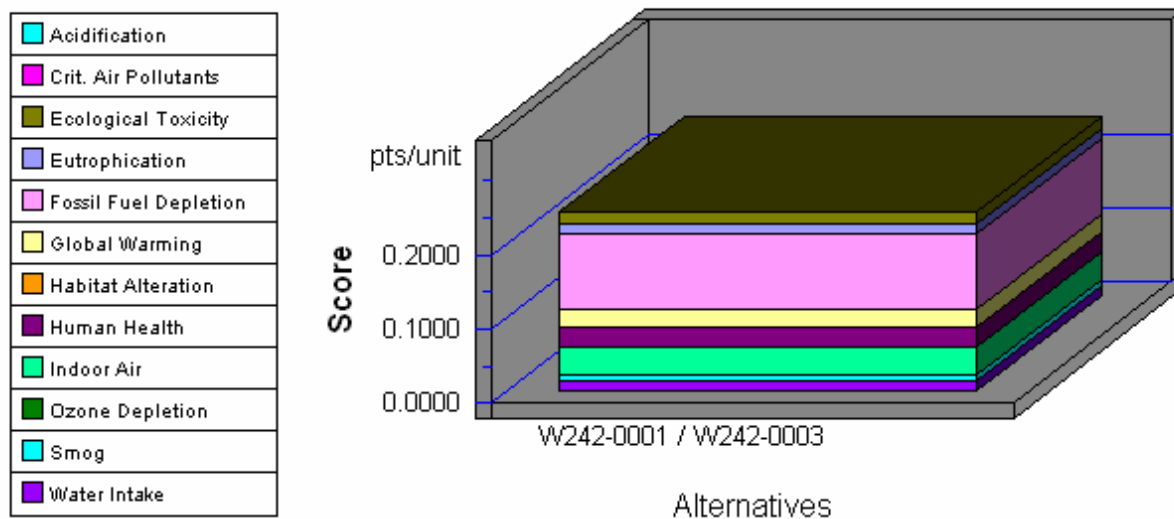


	Manufacturers Identified	Products Identified	C14	BEES
1	Y23N	Y23N-0003	0	
2	Y23N	Y23N-0004	0	
3	Y23N	Y23N-0002	10	
4	Y23N	Y23N-0001	10	
5	W242	W242-0002	23	
6	W242	W242-0004	24	
7	W242	W242-0001	31	yes
8	W242	W242-0003	35	yes
9	J34L	J34L-0001	37	

## Appendix B - BEES Analysis Results

Functional Unit: Covering 1 sq yard over 50 years

### Environmental Performance

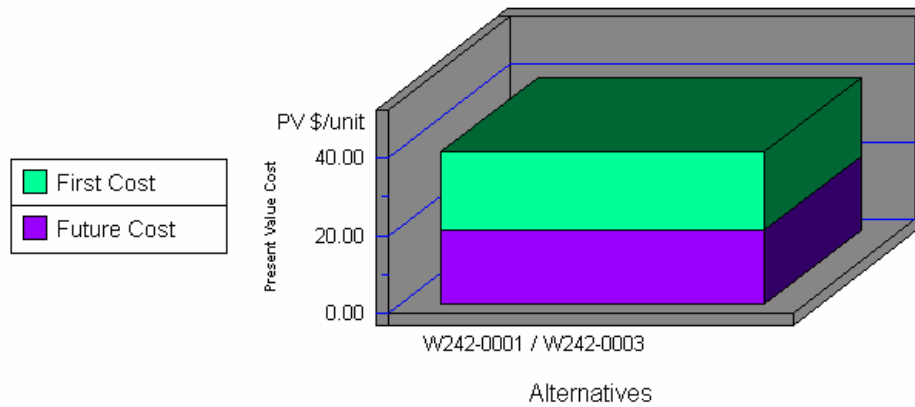


**Note: Lower values are better**

Category	W242-0001 / W242-0003
Acidification--5%	0.0000
Crit. Air Pollutants--6%	0.0014
Ecolog. Toxicity--11%	0.0165
Eutrophication--5%	0.0112
Fossil Fuel Depl.--5%	0.1028
Global Warming--16%	0.0240
Habitat Alteration--16%	0.0000
Human Health--11%	0.0278
Indoor Air--11%	0.0377
Ozone Depletion--5%	0.0000
Smog--6%	0.0079
Water Intake--3%	0.0136
<b>Sum</b>	<b>0.2429</b>

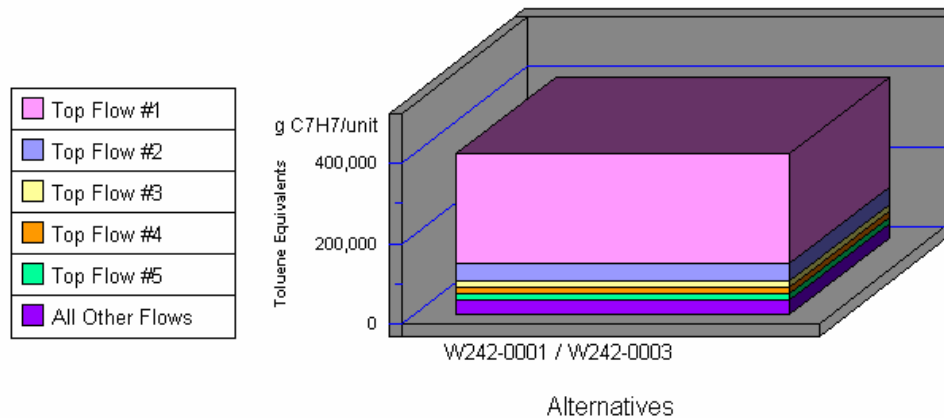
## Appendix B (continued)

### Economic Performance



Category	W242-0001 / W242-0003
First Cost	20.00
Future Cost-- 3.9%	19.22
<b>Sum</b>	<b>39.22</b>

### Human Health by Sorted Flows\*



**Note: Lower values are better**

Category	W242-0001 / W242-0003
Cancer--(w) Phenol (C6H5OH)	273,413.80
Cancer--(a) Dioxins (unspecifie	42,887.78
Cancer--(a) Arsenic (As)	17,067.48
Noncancer--(a) Mercury (Hg)	16,443.91
Cancer--(w) Arsenic (As3+, As5+	15,403.35
All Others	35,956.91
<b>Sum</b>	<b>401,173.23</b>

\*Sorted by five topmost flows for worst-scoring product